September 18, 2013 DRAFT

Highlights of Aerojet Citizen Advisory Group (CAG) Comments on OU6 Proposed Plan

1. **The CAG recommends that development on land in OU6 continue to be restricted until the public process for OU7 has been completed and any related institutional controls addressing ground water vapor are in place.** Since the OU7 Remedial Investigation/Feasibility Study (RI/FS), Risk Assessment and Proposed Plan have not yet been through a public process, selecting a remedial alternative for OU7 is premature and out of step in the remedial process. Furthermore, the OU6 Proposed Plan does not adequately disclose (a) that EPA proposes to permit residential use in areas subject to OU7 groundwater vapor provided that vapor mitigation is installed (due to an omission in the description of Alternative 2 on page 14), (b) the extent of the institutional controls intended to address groundwater vapor (due to an omission connecting Remedial Action Areas in Table 1 to Figures 3 and 4), and (c) the clean up levels are not provided for groundwater vapor.

2. **The CAG recommends prohibiting residential developments on areas where SVE remedies will be operational until SVE is complete.**
The remedy selected, particularly the SVE remedy, for Mixed Use and Residential Area needs to have more explanation. Would the EPA allow buildings such as housing be built on top of SVE system or would there be land use restriction where no buildings can be built until SVE remedy is considered complete and meet the Remedial Action Objectives (RAOs) for VOCs for the specified land use? Either way, this has to be explained because many community members interpret this SVE system to be built in a way that would allow buildings constructed on top of the SVE system and this would include housing units. The CAG does not support SVE system in operation or retained as a backup system with housing units. The self-monitoring program seems extremely complex and invites conflicts of interest for the housing association or the home-owners. The CAG urges the US EPA and DTSC to seriously reconsider allowing SVE remedy with residences built on top or in the proximity of them.

3. **Lands redeveloped in OU6 should have deed restrictions to prevent human exposure to groundwater. These restrictions would specifically prevent wells for drinking water or irrigation.**
There should be a deed restriction for all of OU6 to prevent people from digging a well for drinking and irrigation purposes. The contamination in OU6 is well documented and there should be a deed restriction for the use of groundwater for the purpose of health protectiveness. There may be a restriction to prevent groundwater for drinking and irrigation due to other reasons; however, the deed restriction should be specifically to prevent humans from exposed to groundwater.

and how to ensure the integrity of the backfill material. Simply put, there is no regulatory oversight in areas that receives "not retained" designation, the area exits out of the CERCLA process; in fact, it receives an "unrestricted use" designation. This type of "remedy" in not protective of the human health, commercial or residential or suitable for building schools. Under the current proposal, the soil there can be moved without any restriction and re-used for other proposes.

c. Are there any other sites like those mentioned above that receives a "not retained" designation because future residential use is highly unlikely?

5. **The CAG recommends the US EPA and state regulatory agencies conduct a post-removal ERA to adequately capture the extent of contamination, including areas off-site, and determine whether additional action is needed.**
AE-C-1 and Buffalo Creek. Aerojet states that a removal action completion was conducted in 2010 to achieve its Time-Critical Removal Action (TCRA). Please note that a TCRA does not necessarily need to achieve preliminary remedial cleanup goals (PRGs). It is unclear to the CAG what was the removal action goal in 2010, and whether the PRGs would be the same as the removal action goals (side note: removal action goals are often much higher than the remedial cleanup goal). While it is possible that the TCRA confirmation sampling result meet the preliminary remedial action goal, the FS lacks detail on whether areas outside the excavation have been sufficiently delineated and meet the PRGs. It appears that a post-removal action ecological risk assessment (ERA) would be needed in order to make this determination. Without a post-removal action ERA, we think it's premature to draw a no further action conclusion.

6. **Should the benchmark used for lead exposure concentrations be 1 ug/dL, instead of 10 ug/dL?**
OU6 Feasibility Study. Table 1-2. Descriptions of Graphical Risk Summary Figures. The blood lead level for protection of school children and fetuses (OEHHA, 2007) for source-specific incremental change is 1 ug/dL, not 10 ug/dL as the table and other parts of the report and figures shows. Using 10 ug/dL would underestimate the benchmark for lead blood concentration, and would not be protective for school children and fetuses under California regulatory standard. Therefore, the change in blood lead that is health protective must be re-evaluated and therefore, additional areas of remediation are likely.

7. **For regions proposed for no action, the CAG recommends the Proposed Plan address the potential risk of exposure to contaminants in soil, including deeper soils, if such soils were excavated and reused.**
The CAG raised concerns at a previous CAG meeting over discussions of the potential unrestricted reuse of soil from no action areas. The CAG is concerned that soils, including deep soils in regions proposed for no action that are impacted with contaminants at the present time (or by future migration of contaminants)

11. **More information should be provided in the Proposed Plan on ICs and Capping, including vapor barrier depressurizations systems (Potential Tier 1 comment)**
The EPA has previously described plans to use a vapor barrier membrane to mitigate vapor intrusion (VI) to indoor air. The CAG pointed out at a CAG meeting that DTSC does not agree that a vapor barrier is sufficient, and recommends that a subslab vapor depressurization system be installed to ensure that VI in to indoor air can be addressed. Yet these are not even mentioned in the Proposed Plan as part of a remedy. The Proposed Plan needs to discuss Institutional Controls and Capping and if and how the vapor barrier and subslab vapor depressurization systems will serve in these designs.

12. **The CAG requests that the US EPA consider using the corrected value of 50 ug/kg rather than 60 ug/kg as a perchlorate cleanup value in areas that are planned for residential or mixed use.**
Table 2a. Exposure of Perchlorate via home-grown produce. Perchlorate is known to have high propensity to bioaccumulate in vegetation. In response to CAG's concern regarding perchlorate exposure via home-grown produce, US EPA responded to CAG's in its December 2012 letter (US EPA, 2012). In the letter, the US EPA quantitatively modeled residential exposure of perchlorate and the soil-concentration above which would be a concern. In that letter, the US EPA determined that a soil-screening level of 60 ug/kg (ppb) perchlorate in soil would be protective of a child, assuming 40% of his total vegetation consumption would come from a home-garden.
    a. We appreciate the work that US EPA and other regulatory agencies have put in to respond to CAG's concern. As part of CAG's Technical Assistance Grant, the human health risk assessor from Skeo's Solution identified a calculation error; if the error were corrected, the soil-screening level would be lowered from 60 ug/kg to 50 ug/kg for the protection of 13-49 year old women. The CAG agrees with the Skeo solutions calculations. The CAG feels that a 20% difference in value [(50-60)/50=0.20] is significant. The CAG requests that the US EPA consider using the corrected value of 50 ug/kg rather than 60 ug/kg as a perchlorate cleanup value in areas that are planned for residential or mixed use.
    b.
    c. The CAG also notes that if a greater proportion of vegetables were home produced, the screening level for protection of 13-49 year old women for perchlorate would be even lower, with soil screening levels of 40 ug/kg perchlorate if 50% of the vegetables consumed were home grown, and with soil screening levels of 25 ug/kg perchlorate if 80% of the vegetables consumed were home grown. For these reasons, the CAG considers that the a screening level of no greater than 50 ug/kg perchlorate should be used for the protection of women and children in the home gardening pathway.
    d. The CAG recommends that 50 ug/kg for perchlorate should be added under "Residential Cleanup Level for the Protection of Human Health"